

A B C D E F G H I J

Fig. 1C

⊕	⊖	⊗	⊙	⊙	⊙	⊙	⊗	⊙	⊕
⊖	⊙	⊙	⊙	⊙	⊙	⊙	⊗	⊖	⊕
A	B	C	D	E	F	G	H	I	J
⊕	⊕	⊗	⊖	⊖	⊖	⊖	⊗	⊙	⊕
⊖	⊕	⊗	⊖	⊖	⊖	⊖	⊗	⊖	⊕

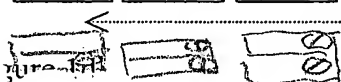


Fig. 1D

Example: $\alpha = 30^\circ$, $\Delta n = 0.2$, $D = 2\text{mm} \rightarrow d = 0.4\text{mm}$
 $4\text{mm} \rightarrow 0.8\text{mm}$

Fig. 2

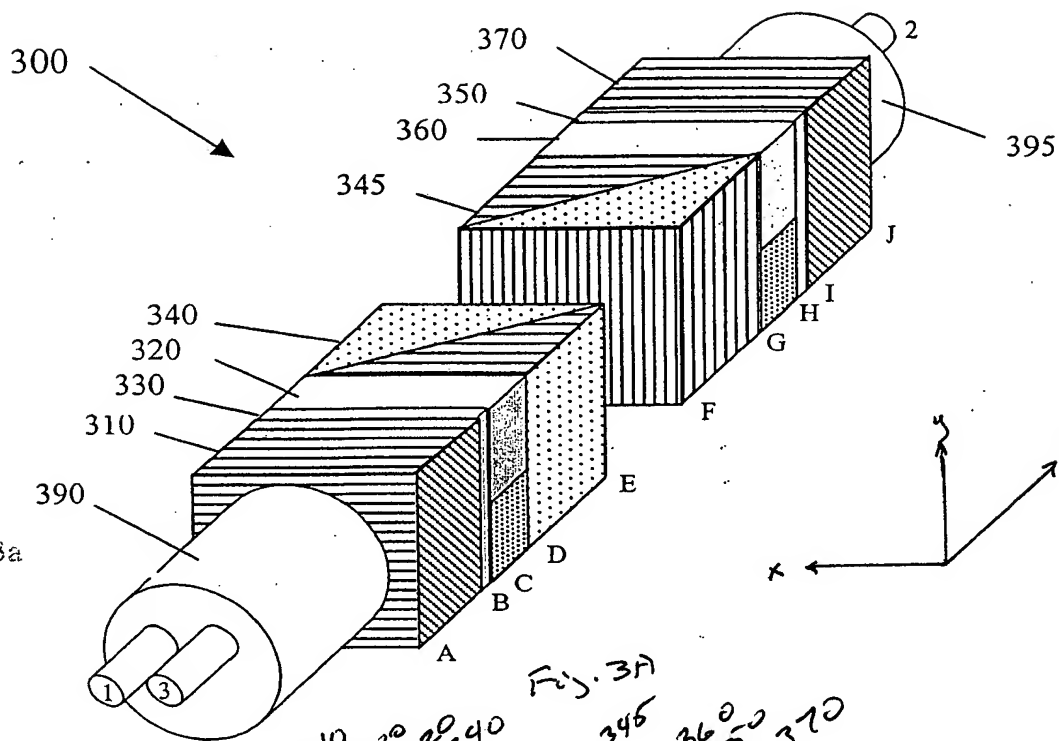


Figure 3a

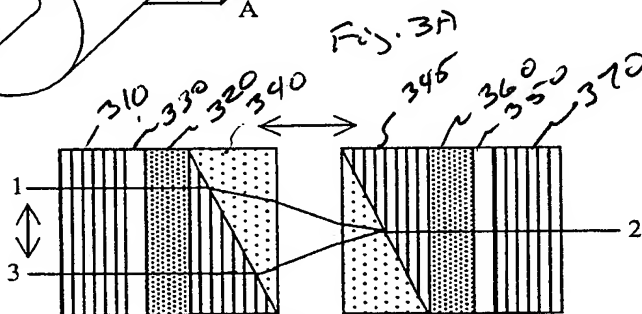


Figure 3b (top)

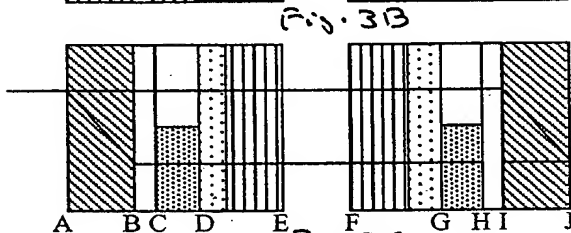


Figure 3c (side)

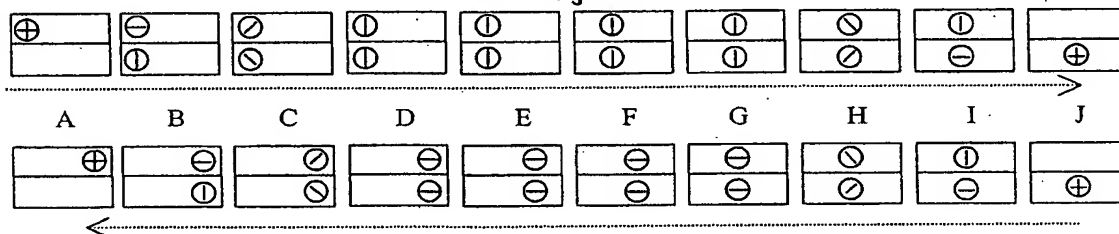


Fig. 3d

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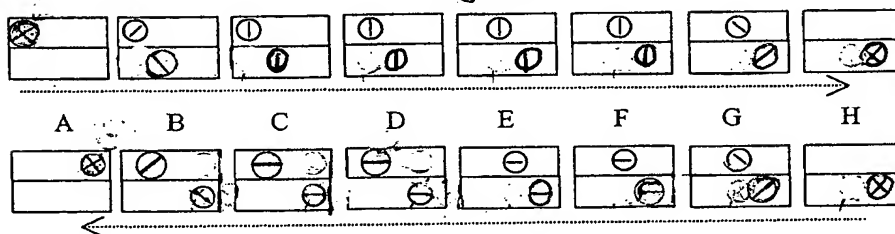
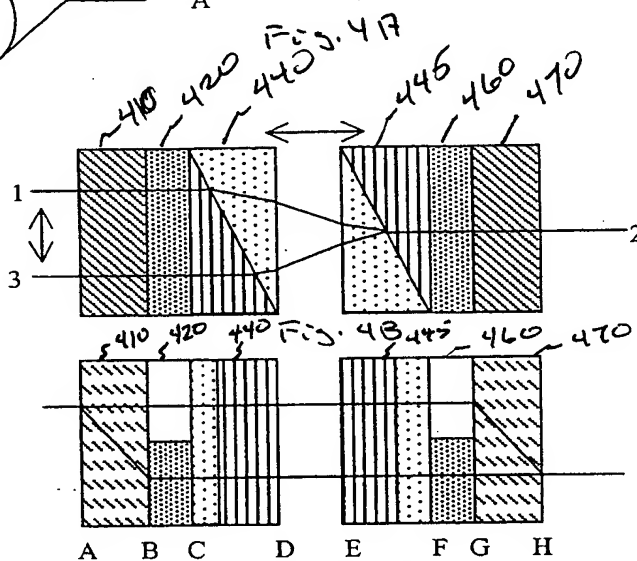
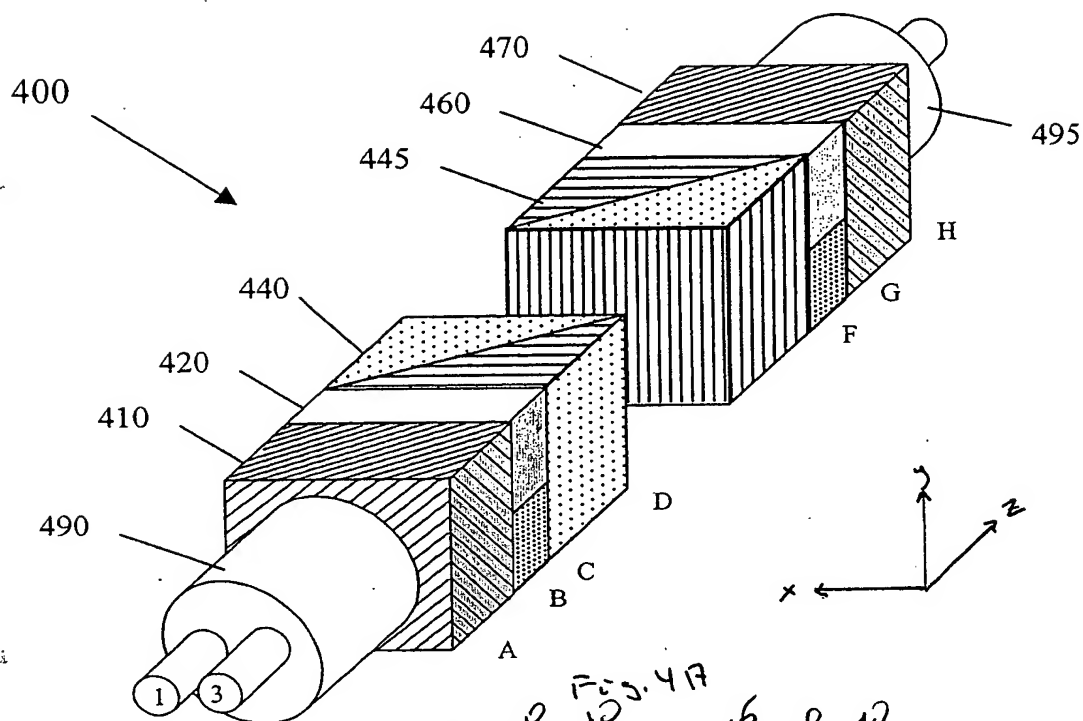


Fig. 4D

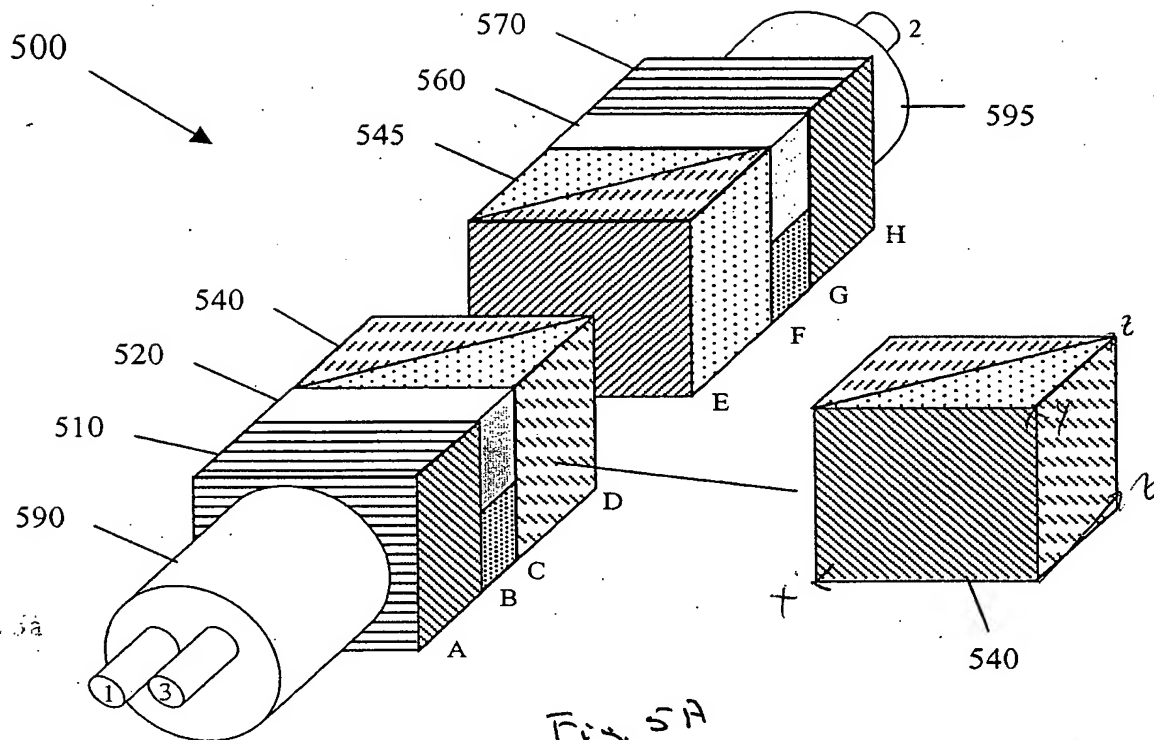


Figure 5a

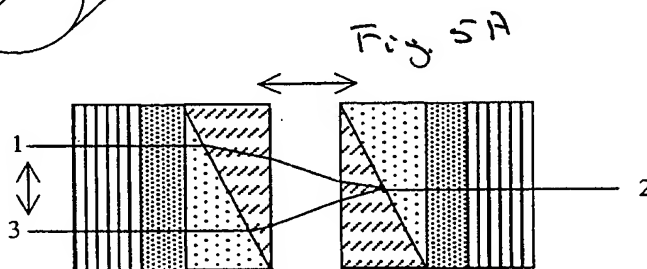


Figure 5b (top)

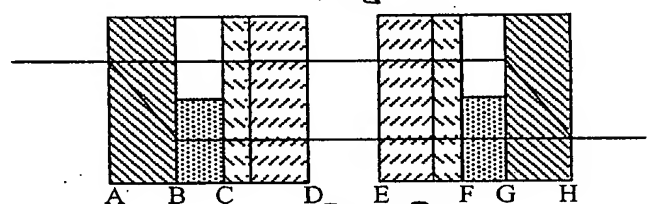


Figure 5c (side)

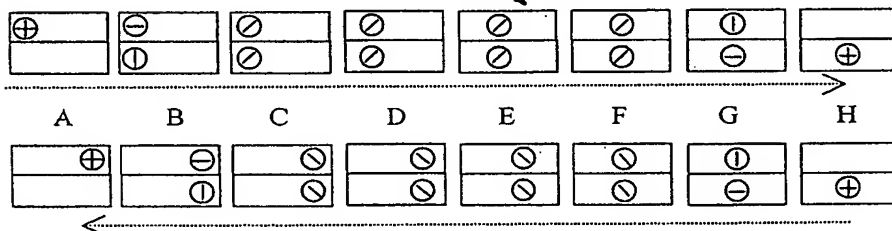


Figure 5d

Fig. 5D

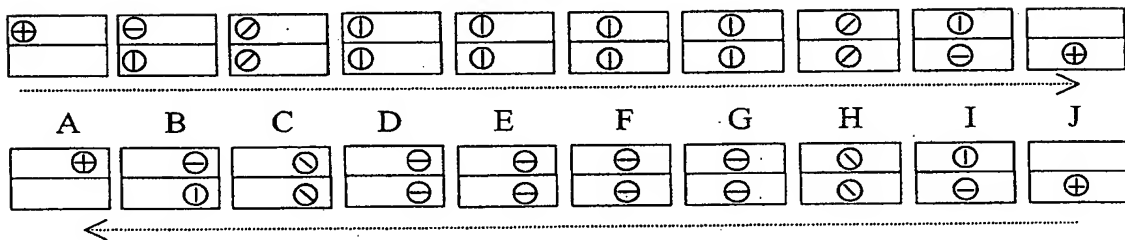
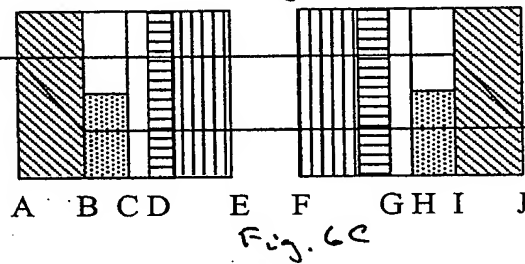
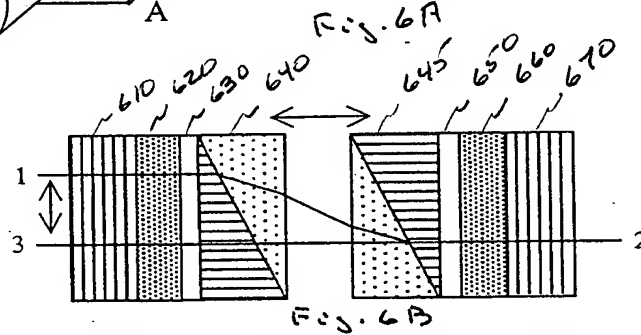
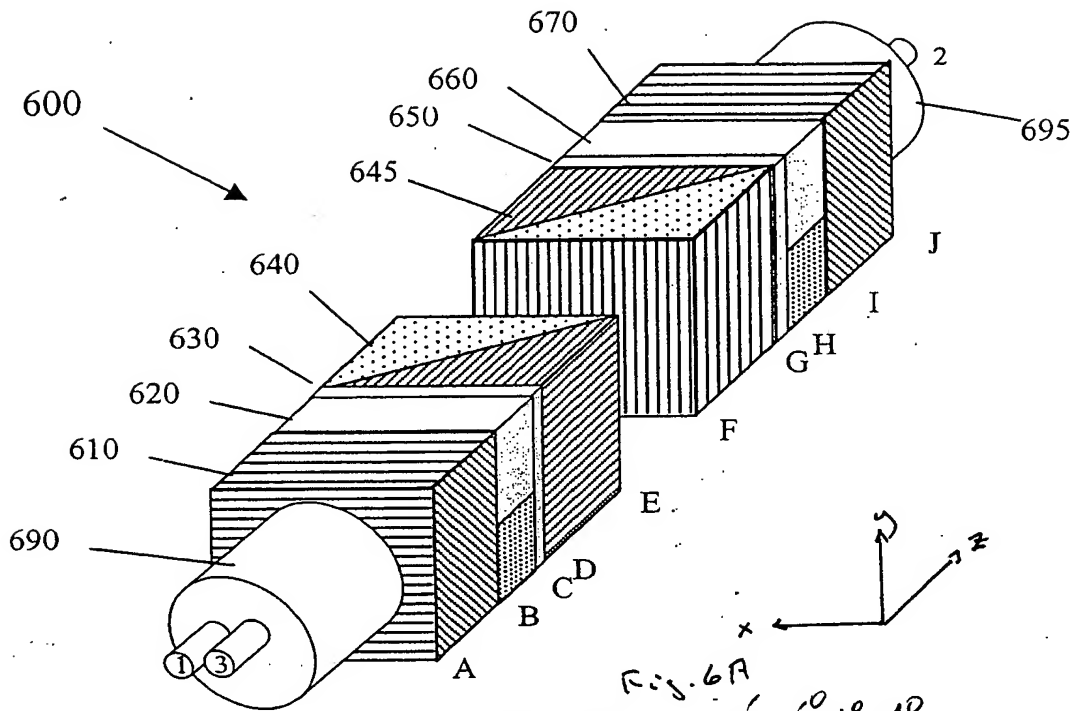


Fig. 6D

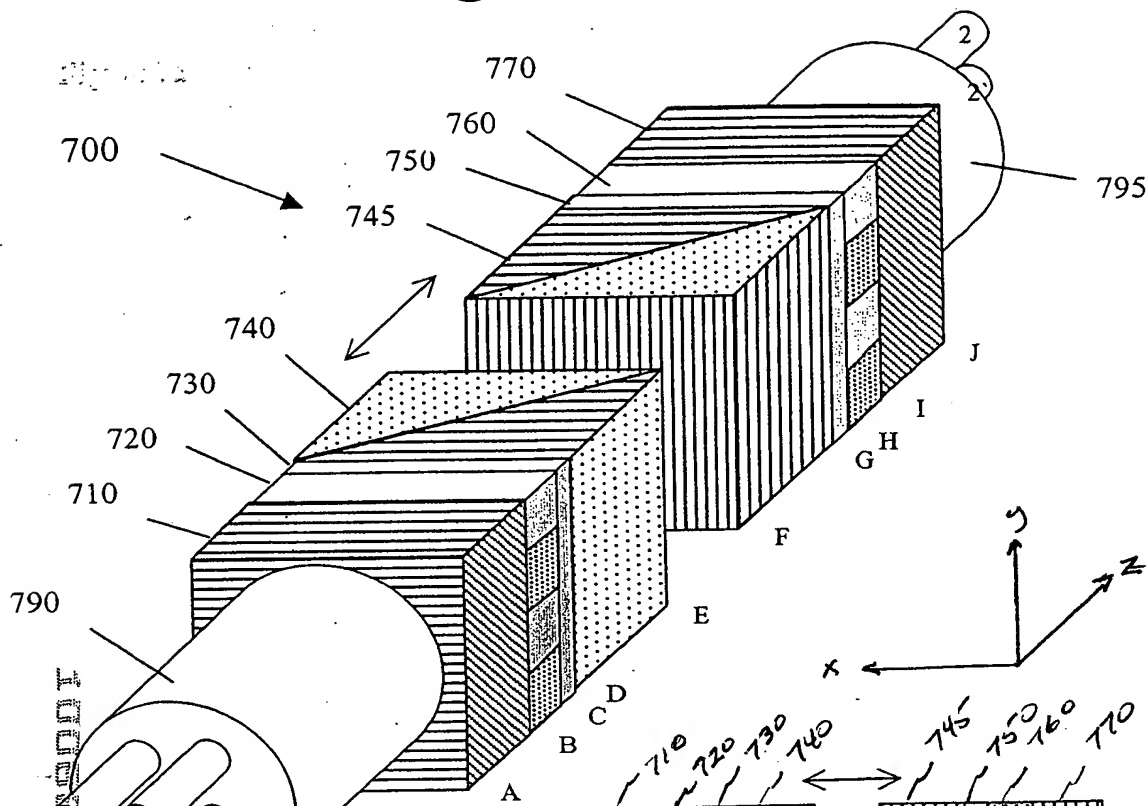


Fig. 7A

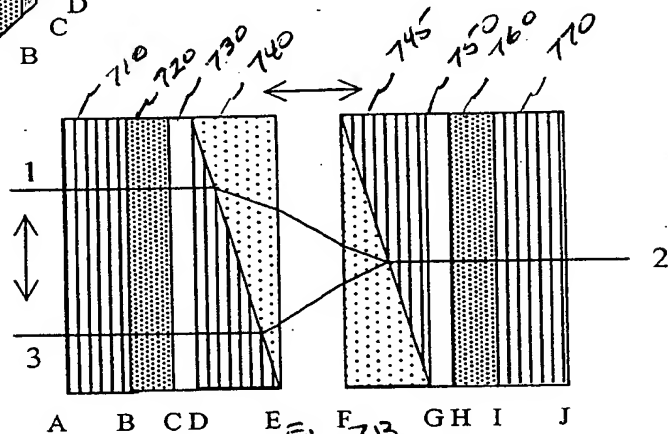


Fig. 7B

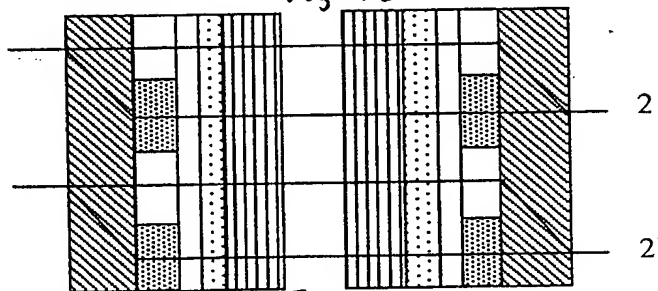


Fig. 7C

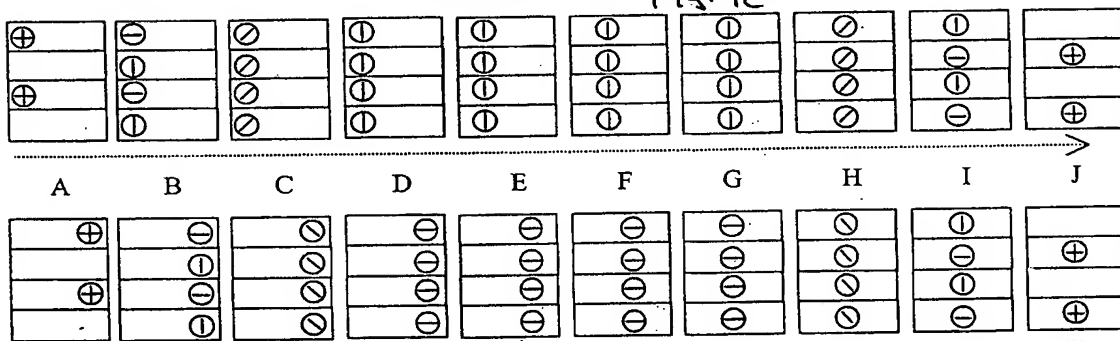


Fig. 7D

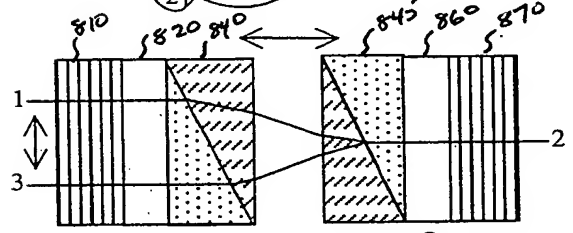
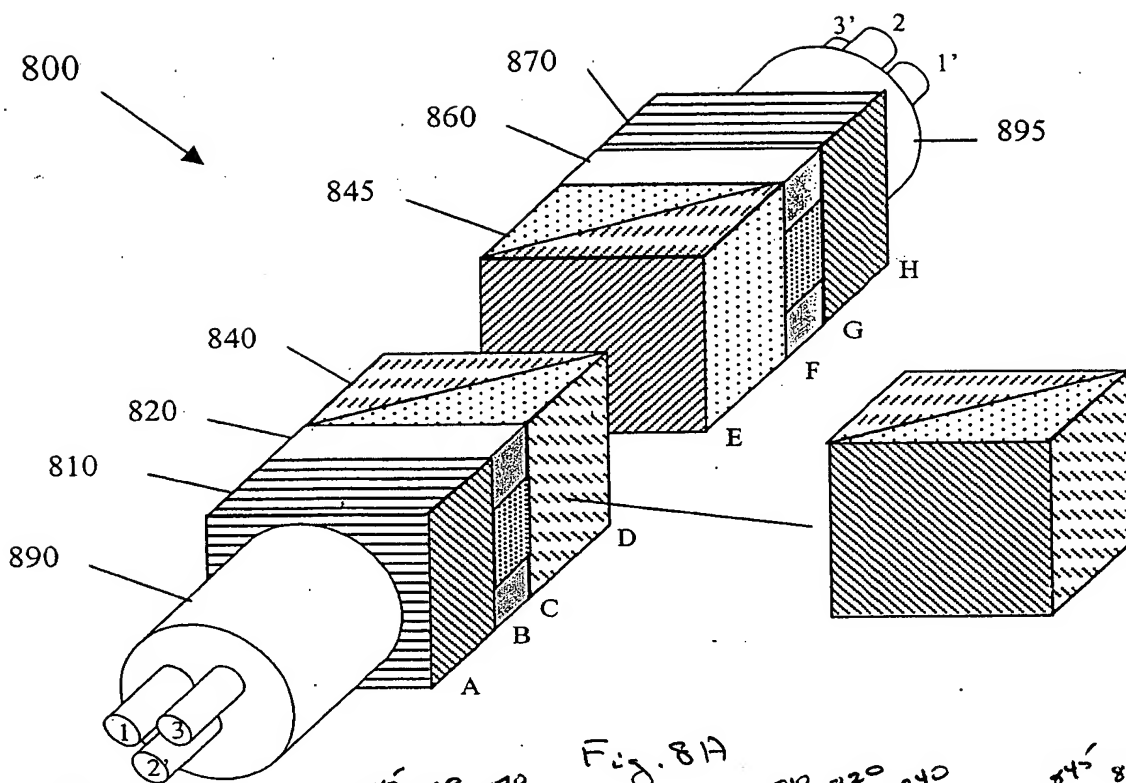


Fig. 8B (top)

Fig. 8A

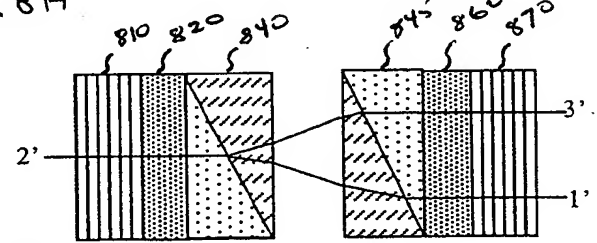


Fig. 8C (top)

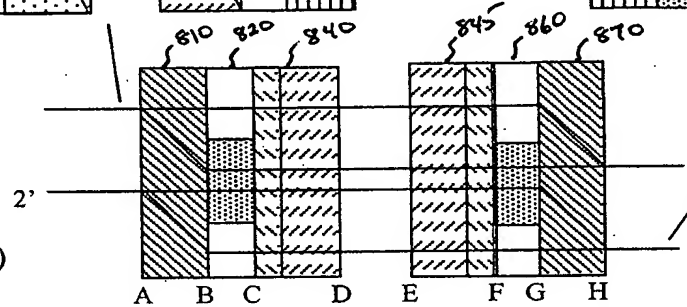


Fig. 8D (side)

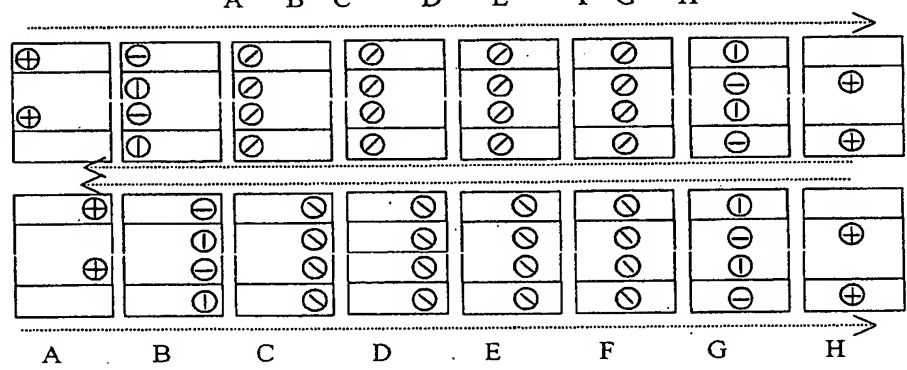
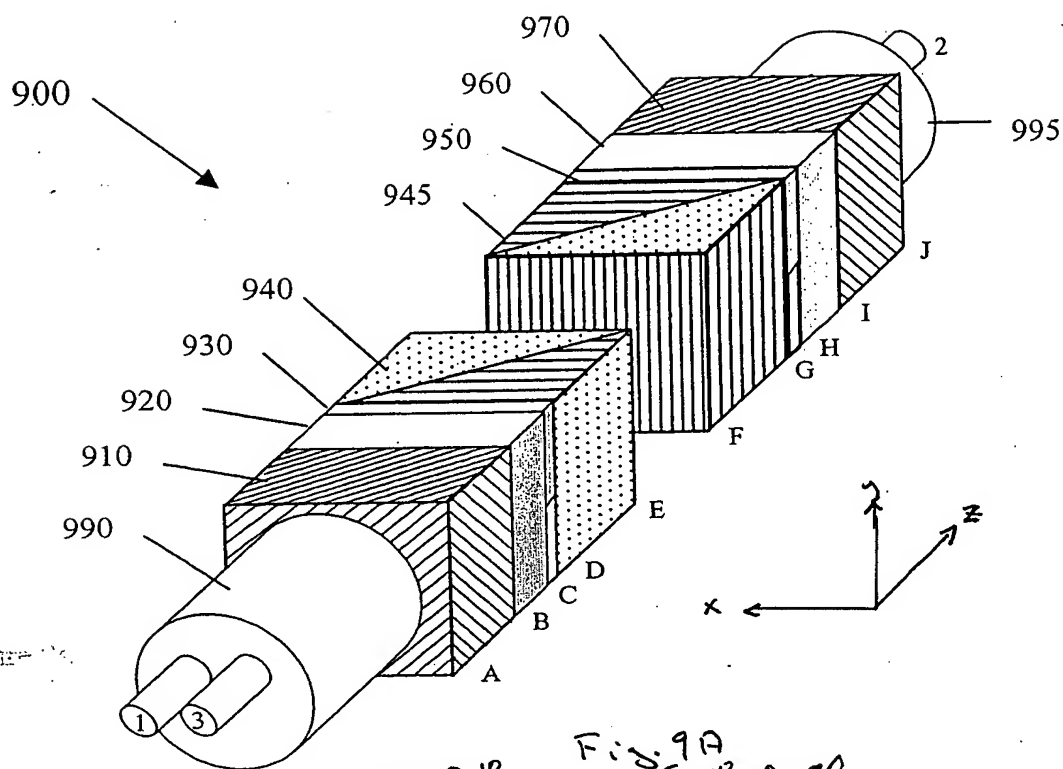


Fig. 8E



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Figure 9

Figure 9a (top)

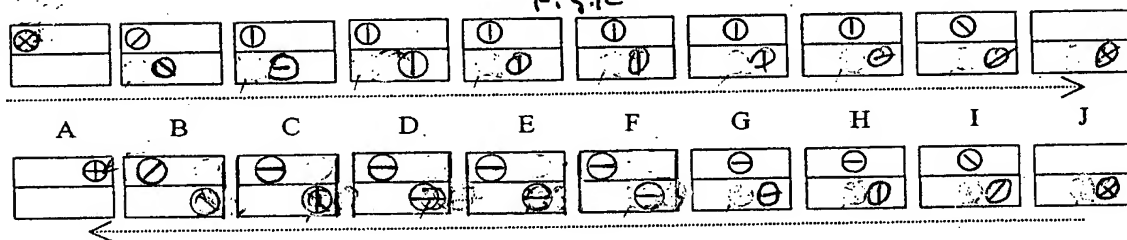
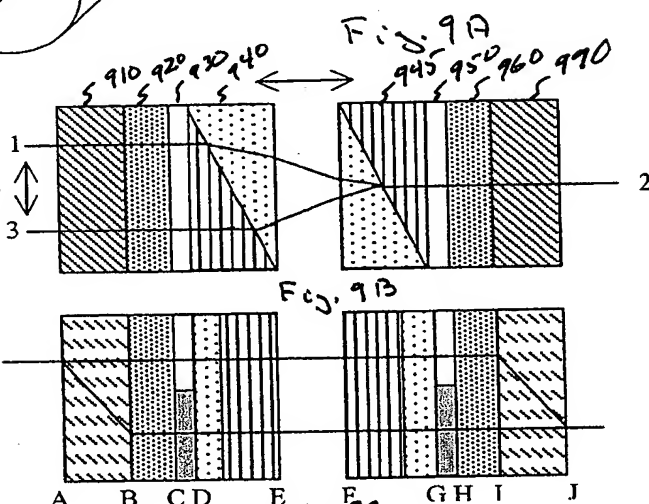


Fig. 9D

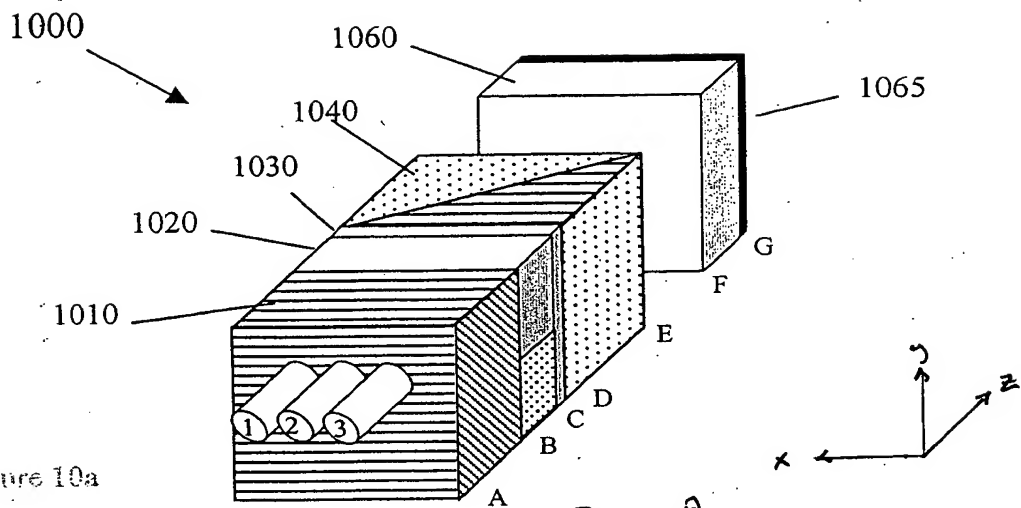


Figure 10a

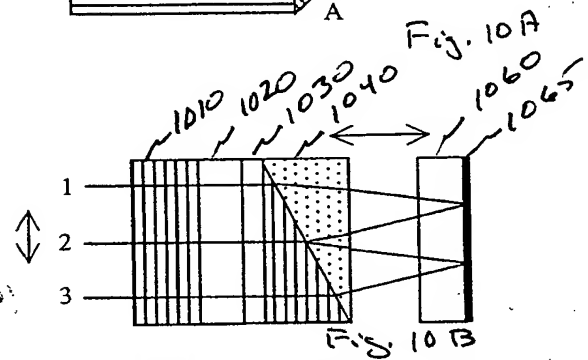


Figure 10b (top)

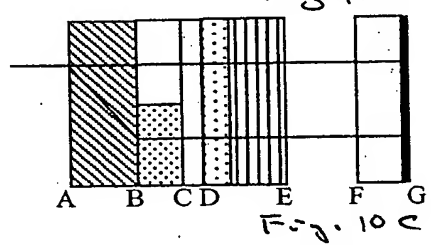


Figure 10c (bottom)

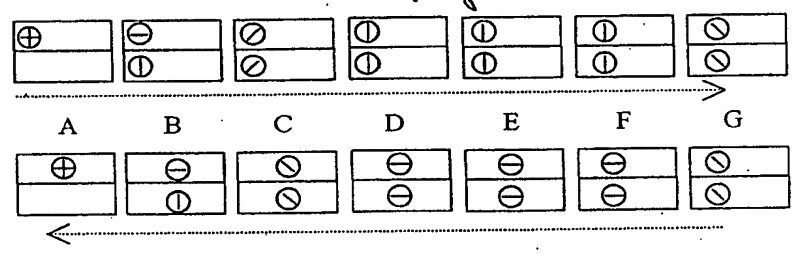


Fig. 10d

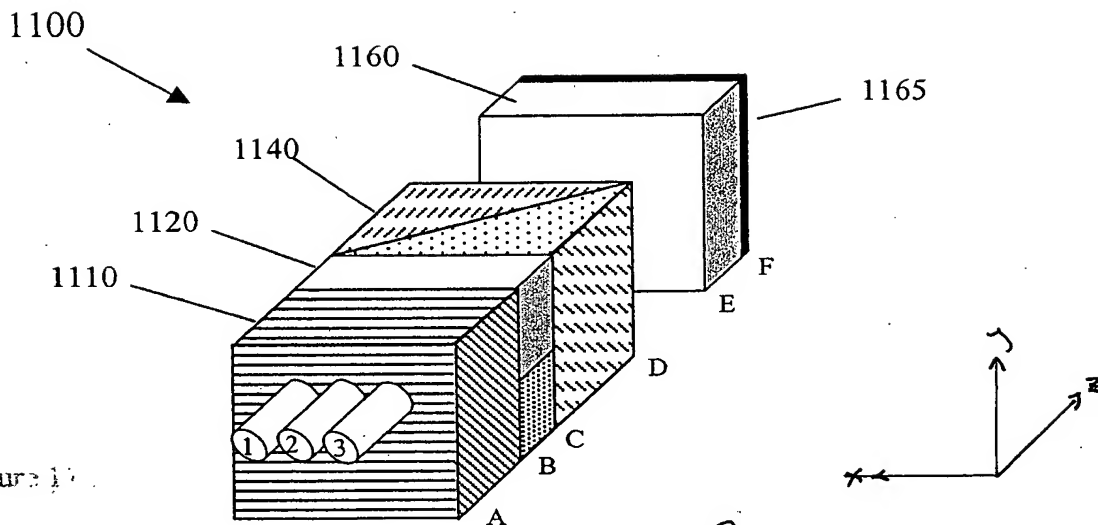


Figure 11

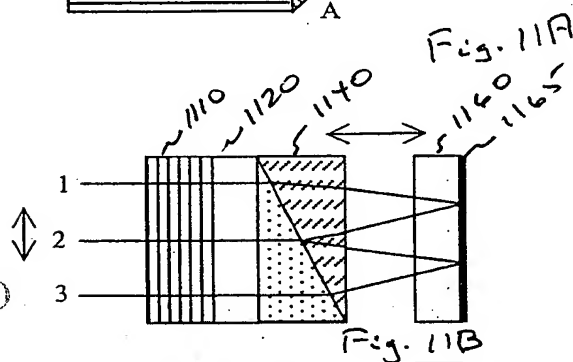


Fig. 11A

Figure 11 (top)

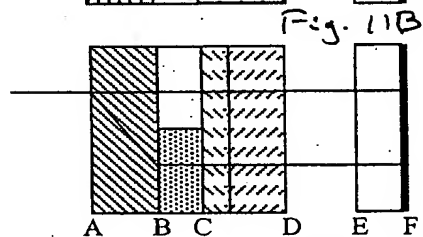


Fig. 11B

Figure 11 (side)

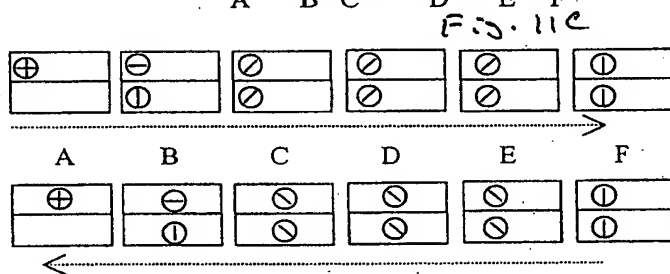
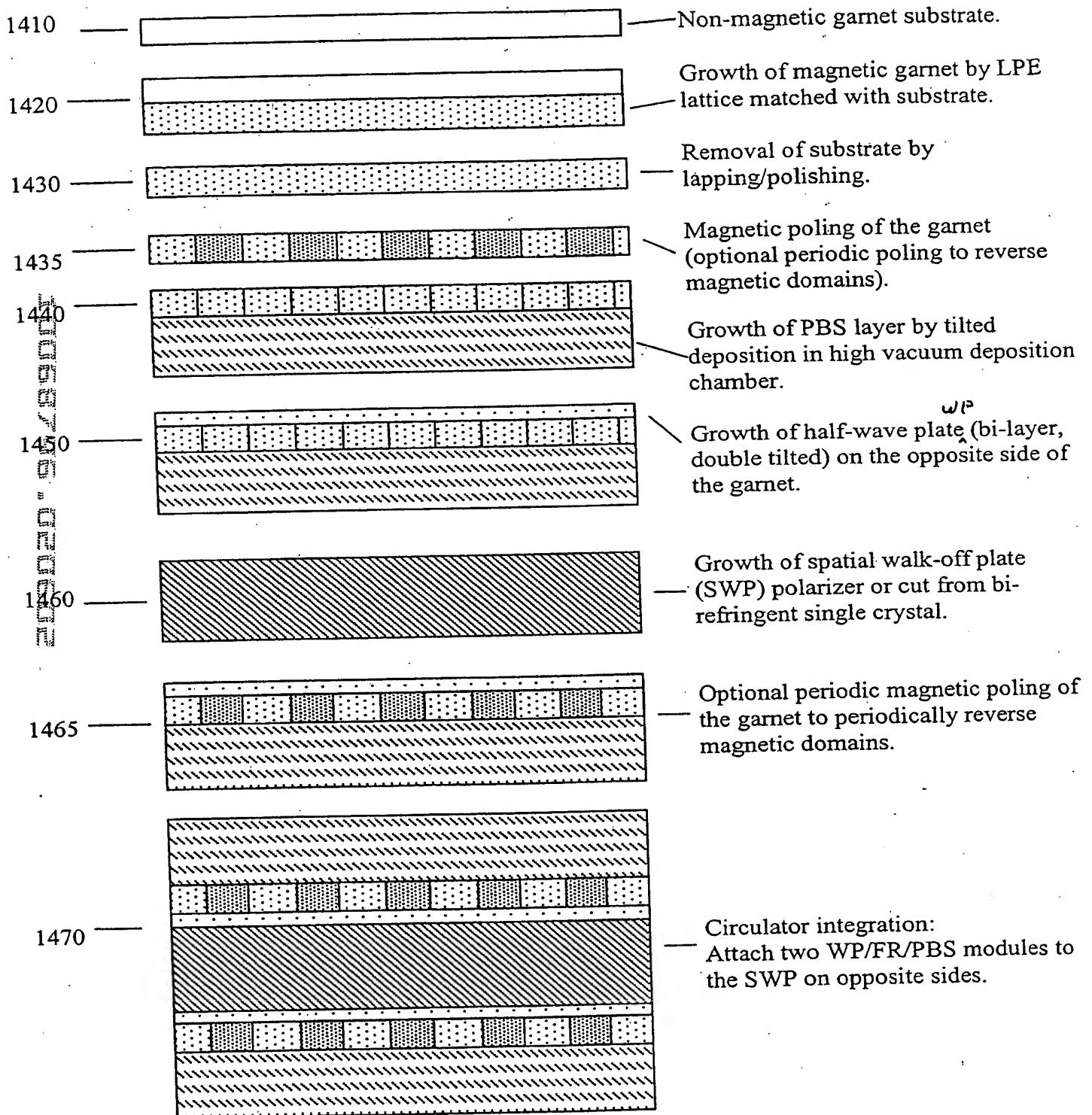


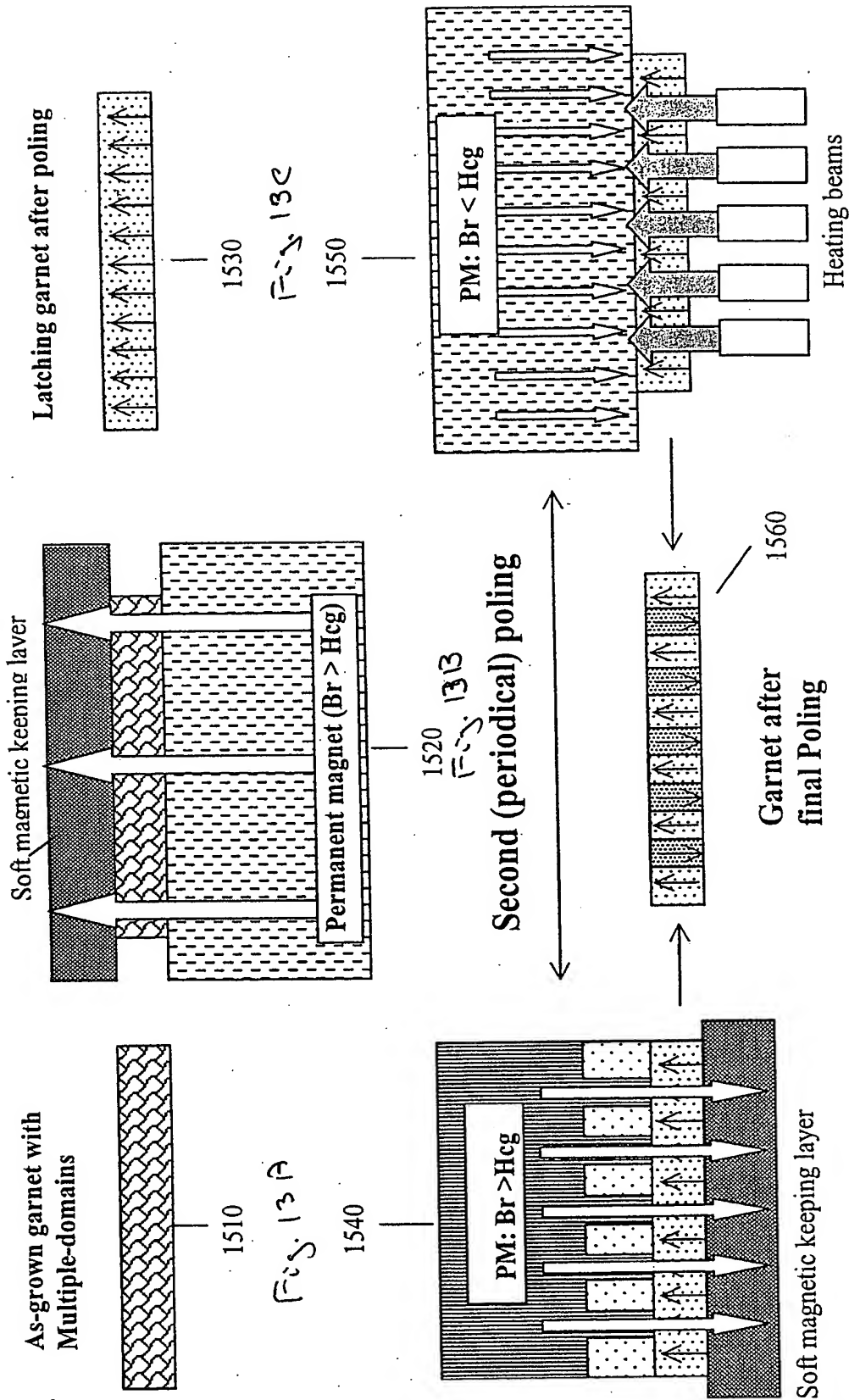
Fig. 11C

Fig. 11D

Fabrication Process of a Circulator Array



Initial poling in high field



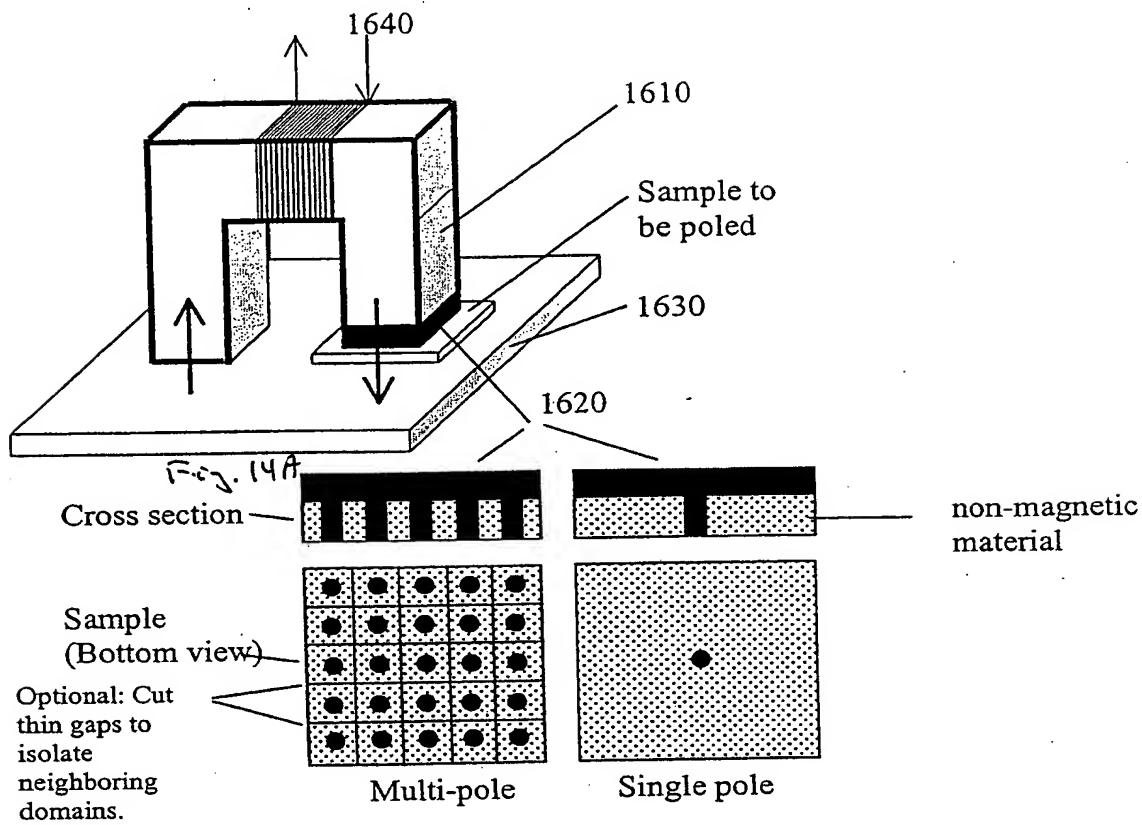
Cold poling: Only those domains contacting the magnetic tips are magnetically reversed.

Fig. 13D

Hot poling: Only those domains illuminated by the heating beams are magnetically reversed.

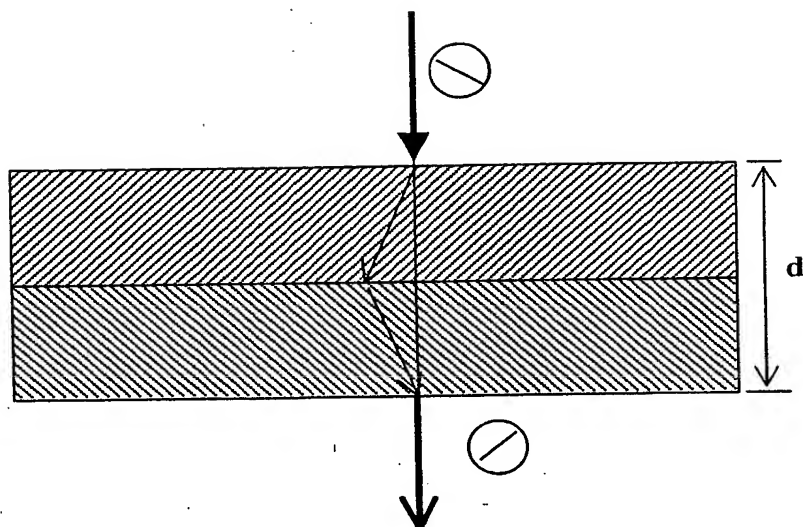
Fig. 13F

Magnetic (Periodic) Poling of Faraday Rotator



F: 8.14 B

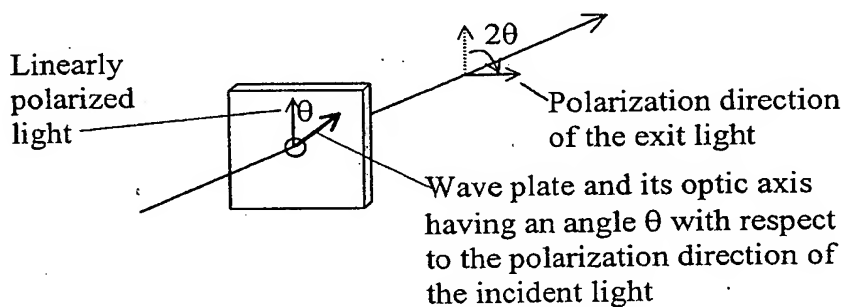
Fig. 14c



Waveplate from bi-directionally obliquely deposited films

Half wave plate : $\Delta n \cdot d = \lambda/2$

The half-wave plate is capable of rotating a linearly polarized light by 2θ (where θ is the direction of polarization with respect to the optical axis before entering the wave plate).



$F = 2 \cdot 15$

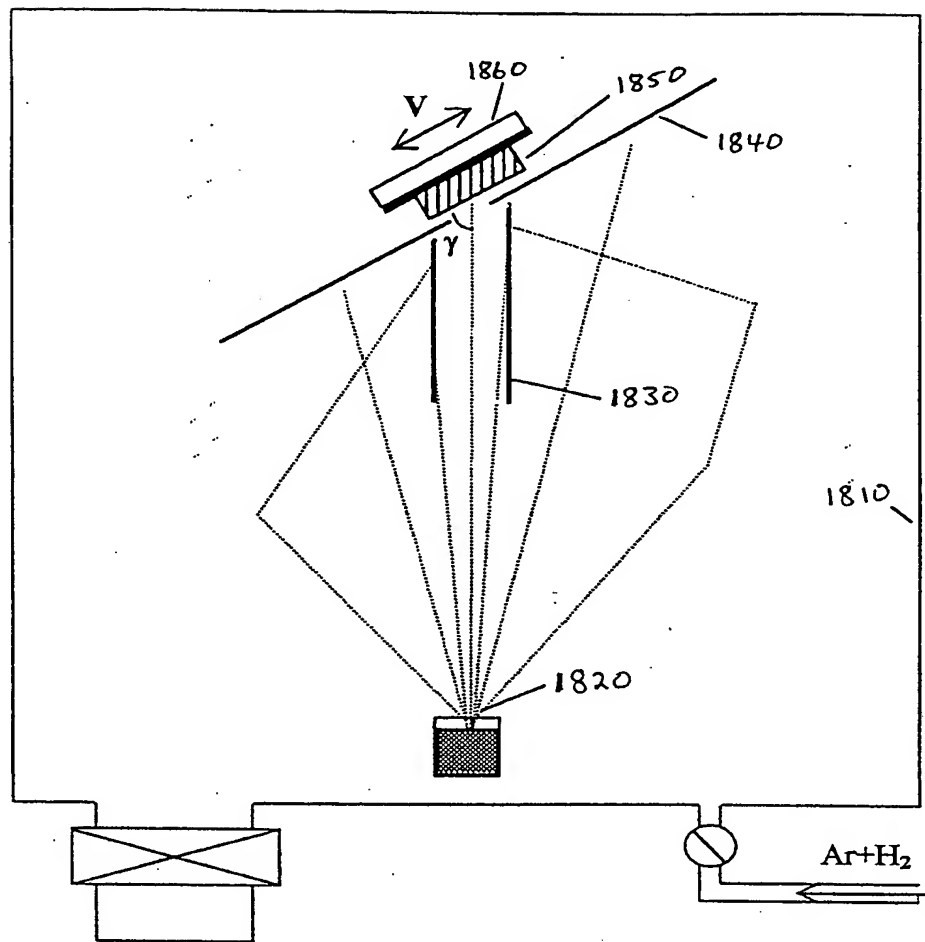


Fig. 16

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Fabrication Process of a Circulator Array

